

**IN THE CLAIMS**

1.     **(Currently Amended)**     A method of forecasting future orders of parts for products sold to customers, comprising the steps of:

          determining a time-course record of orders with respect to each part and extracting low-order-rate parts whose order records show order rate to have fallen below ~~the~~ a predetermined level;

          determining from each such order record at least one parameter indicating a characteristic of orders after the order rate fell below the predetermined level, classifying the extracted low-order-rate parts into multiple categories and using the parameter indicating the characteristic of orders to calculate for each of the multiple categories an order occurrence probability distribution;

          carrying out Monte Carlo simulation based on the calculated order occurrence probability distributions to determine occurrence rate probability distributions of number of orders during a predetermined period; and

          forecasting future number of orders of the low-order-rate parts based on the calculated occurrence rate probability distributions of number of orders during the predetermined period.

2.     **(Currently Amended)**     A method according to claim 1, further including the steps of:

          determining a time-course record of orders with respect to each part and extracting second low-order-rate parts whose order records show order rate to have fallen below a second predetermined level higher than said predetermined level;

classifying the extracted second low-order-rate parts into multiple categories and using the parameter indicating the characteristic of orders to calculate for each of the multiple categories an order occurrence probability distribution;

carrying out Monte Carlo simulation based on the calculated order occurrence probability distributions of the second low-order-rate parts to determine occurrence rate probability distributions of number of orders during a predetermined period;

calculating future number of orders of the second low-order-rate parts based on the calculated occurrence rate probability distributions of number of orders during the predetermined period; and

forecasting the future number of orders of the second low-order-rate parts by regression analysis based on order records before order rate fell below the second predetermined level and the calculated number of orders.

3.     **(Original)**     A method according to claim 1, wherein the parameter indicating the characteristic of orders is at least one of an order occurrence interval and a ratio of number of orders.

4.     **(Original)**     A method according to claim 2, wherein the parameter indicating the characteristic of orders is at least one of an order occurrence interval and a ratio of number of orders.

5.     **(Original)**     A method according to claim 3, wherein the ratio of number of orders is a ratio of the number of orders after order expired to the number of orders before order expired.

6.     **(Original)**     A method according to claim 4, wherein the ratio of number of orders is a ratio of the number of orders after order expired to the number of orders before order expired.

7.     **(Currently Amended)**     A method of forecasting future orders of parts for products sold to customers, comprising the steps of:

      determining a time-course record of orders with respect to each part and extracting low-order-rate parts whose order records show order rate to have fallen below ~~the~~ a predetermined level;

      determining from each such order record an order occurrence probability distribution as a function of time and an order occurrence probability distribution as a function of a ratio of number of orders;

      carrying out Monte Carlo simulation based on the calculated order occurrence probability distributions to determine occurrence rate probability distributions of number of orders during a predetermined period; and

      forecasting future number of orders of the low-order-rate parts based on the calculated occurrence rate probability distributions of number of orders during the predetermined period.

8.     **(Original)**     A method according to claim 7, wherein the ratio of number of orders is a ratio of the number of orders after order expired to the number of orders before order expired.

9.     **(Original)**     A method according to claim 7, wherein the extracted low-order-rate parts are classified into multiple categories and the order occurrence probability distribution is determined for each of the multiple categories.

10. **(Original)** A method according to claim 1, further including the steps of:  
checking accuracy of the forecast number of orders; and  
changing the categories based on a result of checking.
11. **(Original)** A method according to claim 7, further including the steps of:  
checking accuracy of the forecast number of orders; and  
changing the categories based on a result of checking.
12. **(Currently Amended)** A system for forecasting future orders of parts for products sold to customers, comprising:  
time-course order record determining means for determining a time-course record of orders with respect to each part and extracting low-order-rate parts whose order records show order rate to have fallen below ~~the~~ a predetermined level;  
order occurrence probability distribution determining means for determining from each such order record at least one parameter indicating a characteristic of orders after the order rate fell below the predetermined level, and for classifying the extracted low order-rate parts into multiple categories and using the parameter indicating the characteristic of orders to calculate for each of the multiple categories an order occurrence probability distribution;  
Monte Carlo simulation means for carrying out Monte Carlo simulation based on the calculated order occurrence probability distributions to determine occurrence rate probability distributions of number of orders during a predetermined period; and  
forecasting means for forecasting future number of orders of the low-order-rate parts based on the calculated occurrence rate probability distributions of number of orders during the predetermined period.

13. **(Currently Amended)** A system according to claim 12, further including:

second time-course order record determining means for determining a time-course record of orders with respect to each part and extracting second low-order-rate parts whose order records show order rate to have fallen below a second predetermined level higher than said predetermined level;

second order occurrence probability distribution determining means for classifying the extracted second low-order-rate parts into multiple categories and using the parameter indicating the characteristic of orders to calculate for each of the multiple categories an order occurrence probability distribution;

Monte Carlo simulation means for carrying out Monte Carlo simulation based on the calculated order occurrence probability distributions of the second low-order-rate parts to determine occurrence rate probability distributions of number of orders during a predetermined period;

order calculating means for calculating future number of orders of the second low-order-rate parts based on the calculated occurrence rate probability distributions of number of orders during the predetermined period; and

forecasting means for forecasting the future number of orders of the second low order-rate parts by regression analysis based on order records before order rate fell below the second predetermined level and the calculated number of orders.

14. **(Original)** A system according to claim 12, wherein the parameter indicating the characteristic of orders is at least one of an order occurrence interval and a ratio of number of orders.

15. **(Original)** A system according to claim 13, wherein the parameter indicating the characteristic of orders is at least one of an order occurrence interval and a ratio of number of orders.

16. **(Original)** A system according to claim 14, wherein the ratio of number of orders is a ratio of the number of orders after order expired to the number of orders before order expired.

17. **(Original)** A system according to claim 15, wherein the ratio of number of orders is a ratio of the number of orders after order expired to the number of orders before order expired.

18. **(Currently Amended)** A system for forecasting future orders of parts for products sold to customers, comprising:

time-course order record determining means for determining a time-course record of orders with respect to each part and extracting low-order-rate parts whose order records show order rate to have fallen below ~~the~~ a predetermined level;

order occurrence probability distribution determining means for determining from each such order record an order occurrence probability distribution as a function of time and an order occurrence probability distribution as a function of a ratio of number of orders;

Monte Carlo simulation means for carrying out Monte Carlo simulation based on the calculated order occurrence probability distributions to determine occurrence rate probability distributions of number of orders during a predetermined period; and

forecasting means for forecasting future number of orders of the low-order-rate parts based on the calculated occurrence rate probability distributions of number of orders during the predetermined period.

19. **(Original)** A system according to claim 18, wherein the ratio of number of orders is a ratio of the number of orders after order expired to the number of orders before order expired.

20. **(Original)** A system according to claim 18, wherein the extracted low-order-rate parts are classified into multiple categories and the order occurrence probability distribution is determined for each of the multiple categories.

21. **(Original)** A system according to claim 12, further including of:  
checking means for checking accuracy of the forecast number of orders; and  
changing means for changing the categories based on a result of checking.

22. **(Original)** A system according to claim 18, further including the steps  
of:

checking means for checking accuracy of the forecast number of orders; and  
changing means for changing the categories based on a result of checking.